Technology Already Field-Proven In Bosnia
TC AIMS II To Incorporate Latest, Greatest AIT

A significant improvement to be seen in the TC AIMS II era will be the ability to fully exploit a certain type of emerging technology known as Automated Identification Technology (AIT). You are already familiar with one type of AIT, the bar code. Joining the mundane bar code are its more exotic AIT brethren, including Radio Frequency (RF) Tags, two-dimensional (2D) bar codes, Smart Cards and satellite-tracking systems. TC AIMS II allows the user to interface with all of these to-

- Simplify and accelerate the initial data entry with less errors.
- Enhance the ability to track individual pieces.

ACR soldier applies 2D MSL

Been there, done that. This integration is now a proven concept. Beginning in May of 1998, the 2nd Armored Cavalry Regiment (ACR) re-deployed to Fort Polk, Louisiana, using the latest AITs married to an initial version of TC-AIMS II. The demonstration, which was a huge success at showing the promise of AIT/TC-AIMS II integration, had these objectives in mind:

HQDA certifies TC ACCIS as Y2K compliant.

February 24, represented the culmination of a very long, arduous process as TC ACCIS formally received Y2K compliance certification for its system. That certification is a vote of confidence from very high leadership levels that TC ACCIS will not have a Y2K problem.

Rest assured that the certification process was no mere paper drill. The TC ACCIS product that has been sent to you, release 5.0.101 has been thoroughly test driven.

As with all releases, 5.0.101 went through Software Quality Assurance (SQA). Think of this as internal testing.

SQA Integration Testing for Y2K had two main objectives:

1. Verify that the TC ACCIS application would run in the 21st century.
2. Verify that the software to carry the TC ACCIS application into the 21st century would also work in 1998 and 1999.

SQA Integration Testing concentrated on the specific folders (enhancements) scheduled for the Y2K release, but also tested all of the TC ACCIS modules.

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- Integrate the latest AIT with TC AIMS II.
- Provide JOPES with level-six detail ITV.
- Measure the effectiveness of an advanced fly-away suite of AIT/Automated Information.
- Accelerate the introduction of TCAIMS II to the European Theater.
- Demonstrate In-Transit Visibility (ITV) of passengers.
- Automate and simplify the production of ITV source data and share it with multiple Automated Information Systems.

An important note is the tremendous improvement of the passenger manifest procedure that relied heavily on smart cards. AIT Branch personnel from USAREUR scanned the smart cards of soldiers at certain re-deployment checkpoints. They scanned the cards again as the soldiers boarded the plane in Taszar, Hungary and finally when they disembarked at Alexandria, Louisiana. The process was fast and reliable. For example, 100 soldiers departed by bus from Tuzla on 7 June. It took only 10 minutes to scan the cards and produce an electronic manifest with 100% accuracy. BG Thompson, Commander of Fort Polk, said of the Smart Card: "The Smart Card has increased the efficiency in soldier accountability in the deployment process. It is an efficient way to quickly build troop lists and/or manifests which expedites a unit's deployment/re-deployment sequence. The Smart Cards made the transition from the Airfield in Alexandria back to Fort Polk incredibly efficient. What seemed to take units a whole day in the past (e.g., returning troops from Saudi Arabia) is now reduced to a very few hours. Soldiers, weapons and equipment were quickly accounted for which allowed the soldiers to return to Fort Polk and their families with minimal delays."

AIT Applications

Automatic Identification Technologies (AIT) is a suite of enabling technologies which provides users with Total Asset Visibility (TAV) and In-Transit Visibility (ITV) information.

Radio Frequency	Optical Memory Card	DTRACS Satellite Tracking	Smart Cards	2D Barcodes/ MSL
Pallets/Containers/ Unit Equipment	Pallets/Containers/ Multi-Packs	Truck/Rail/ Barge/Bus	Personal Information Carrier	"Eaches"/Containers/ Pallets/Multi Packs
"Nodal Asset Tracking"	"Automated Receipting"	"Asset Tracking & Position Reporting"	"Soldier Readiness Data"	"Automated Receipting and Manifesting"

AIT Applications used in 2ACR Unit Move

Another important component of AIT capability was RF tags. Some TC ACCIS users are familiar with RF tags because of several proofs-of-concept that demonstrated the capability of downloading

TC ACCIS data to these tags. The proof-of-concept undertaken in Bosnia/Hungary involved a live re-deployment on a regimental scale. Satellite surveillance was also heavily integrated. Key convoys included a vehicle equipped with a DTRACS transponder by which commanders could monitor the convoy's departure, progress and arrival at its destination. Convoy numbers were ssociated with specific transponder numbers, which correlated positional data to the convoy equipment manifest. The DTRACS transponder populated GTN with data sent via the USAREUR DTRACS server at Friedrichsfeld, Germany and thereupon to other systems. Though primarily used to track sensitive cargo, the Defense Tracking, Reporting and Control Systems (DTRACS) was also a success, allowing 2nd ACR soldiers a redundant means to communicate between Eagle Base and Lukovac Railhead.

AIT Technicians Install RF Interrogator

The entire demonstration was successful on many fronts: Smart Card data was being sent to GTN within an hour, level six data was visible on RF tags in GTN, and ITV was providing commanders with visibility of their shipments. Unit movement data was entered at the troop level, passing the Deployment Equipment List through their command hierarchy to the JOPES TPFDD.

Bottom Line-soldiers in the field were willing and excited, not only about going home, but about something that would make their jobs easier. Though somewhat intimidating at first, this new technology and capability quickly became integral and essential to the performance of their missions.

Condensed from: "Successful AIT/AIS Integration In 2nd ACR Redeployment (Bosnia to Fort Polk, LA)", manuscript for publication by Major General Larry J. Lust, USEUCOM J-4, and Brigadier General Mitchell H. Stevenson, USAREUR DCSLOG.🖥

A Surprise Visit From Aaron Mack

With the beginning of the New Year, Aaron Mack, along with an ergonomics consultant, paid us a surprise visit to inspect our Springfield office. The consultant inspected our building to ensure it was wheelchair accessible in the expectation of his return. Unfortunately, since our building does not have an elevator, his desk will be on the first floor. Everything passed except for the front entrance ramp.

Aaron and his wife, Wanda, are all settled in their new house, and he has resumed his therapy. A transportation company picks him up three times a week and takes him to outpatient physical therapy. Whenever he gets his doctor's permission or decides he's had enough of the talk shows, he plans to return to the TC ACCIS team. ☺ Hooray !!!💻

MAJ Boyd To Attend Command And General Staff College

The Command and General Staff College has selected MAJ Cris Boyd, TC AIMS II lead functional, to attend its CGSC 99-00 class.

The selection CGSC is a distinct honor and demonstrates institutional confidence in the abilities and potential of the selectee.

We're happy to see this opportunity extended to MAJ Boyd; however, we can't claim undiluted happiness over the prospect of losing him.

Since he arrived in Sep 97, MAJ Boyd has been instrumental in developing the TC AIMS II fielding plans for all the services. 💻

TC ACCIS Welcomes Lemuel Hardaway

TC ACCIS has a new face; Lem has joined our team as a Government Functional Analyst after retiring from the U.S. Army in 1991 having worked for many years in a wide variety of military traffic management positions. His most recent position was with the World Wide Port System (WPS) where he spent three and one-half years.

Lem and his wife, Theresa live in Fairfax where he spends his free time golfing and working on his computer. We are pleased to have him on the TC ACCIS Team. 💻
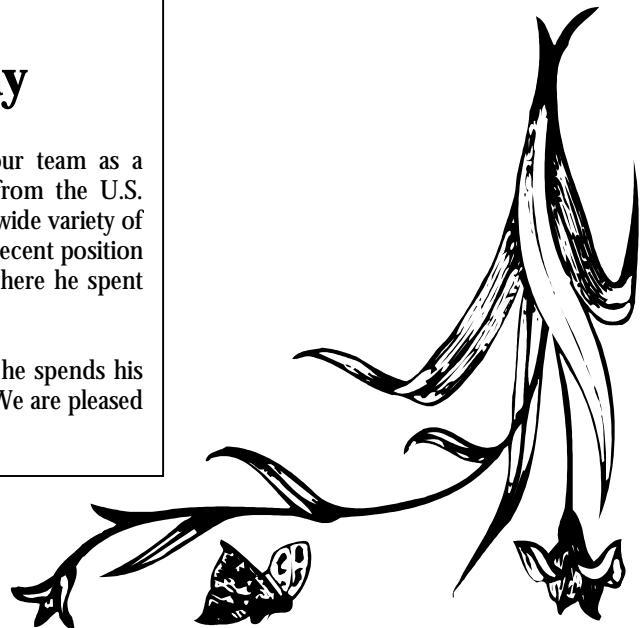
Monitoring Deployed Equipment - The Installation Situation Report And The Departure Report

When you prepare and send a TC ACCIS transmission, the data finds its way to fairly high-level systems designed to give senior leaders the big picture of what is happening. An important TC ACCIS report in this mix is the Installation Situation Report and the Departure Report. The ISR provides

The Departure Report has the same information as the ISR, but is designed for humans…not systems.

a list of equipment deployed so that the movement of this equipment can be more efficiently monitored and managed. Each ISR identifies the MPOE, and the equipment and/or personnel included in the movement. This ISR is prepared in the form of a datafile that is then forwarded to FORSCOM, GTN, and LOGSA. This file cannot be printed or viewed by the users in a report format. However, TC ACCIS provides similar information on its Departure Report, which can also be mailed to other TC ACCIS users. For more information on the two functions, please refer to section 6 page104 of your TC ACCIS End User manual. 💻
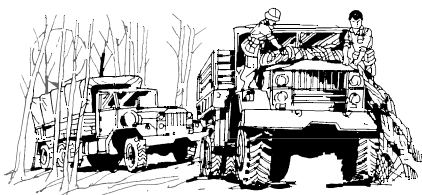
TC ACCIS Tips For Using ATCMD

For the ATCMD procedures (delivered with Release 4.0.293) to work as documented, the ITO must carefully select the appropriate DMOD for the deployment TDC. For CAPS, the ITO must select a DMOD of "A" for Air (For Export) or "F" for AMC Air. For WPS, you must have a DMOD of "S" for surface only.

To prepare the ATCMD, the UMO must add the equipment with the appropriate ECH/ULN and its corresponding DMOD.

Should you have any further questions contact our help desk at: (800) 635-0921 ext. 1059 or 1060💻

Y2K OK
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The Y2K software required special testing for the first leap-year day of the 21st century: 29 February 2000. Because of an apparent software oversight by one of the vendors, a TC ACCIS user must enter this date with a four-digit year: 29feb2000 or 29022000. The user can enter any other date with a two-digit year: 31dec99 or 010100.

TC ACCIS tested its main domains: The application software, the hardware, commercial-off-the shelf software that we use and the transmission to our interfaces. The most extensive of these tests involved the application itself. The application is the software you know as TC ACCIS, is built with Informix, and relies to some extent on other software items.

There were more than 1300 lines of code to renovate to make this application Y2K compliant. Fortunately for the PMO TC ACCIS, our 4GL product was upgraded by Informix to be Y2K compliant.

You will not see much change in TC ACCIS because of this renovation, save one: With 5.0.101 you'll be able to enter dates as four-digit expressions (DDMMYYYY). In the interest of continuity and simplicity, we designed the user interfaces so that you will generally still be able to enter dates as two digit year expressions as well (DDMMYY)—it's your choice. The big exception to that rule is dates entered for 29 Feb 2000—the first leap year of the next millenium where you will have to enter four digit year expressions (see accompanying article TC ACCIS and the next leap year). 💻

Department Of Defense Downsizing

Recently TC ACCIS visited two sites upgrading the Compaq server and terminal equipment having been hard hit by the current DOD downsizing. One of these sites, Ft. Devens lost most of its military personnel and existing post real estate. The TC ACCIS server was retained and continues to be used to support Army Reserve and National Guard units in this newly designated RFTA (Reserve Forces Training Area) site. It now supports units residing in the New England area. Ft. McClellan is also in the process of transferring personnel, and, like Ft Devens, will close as a military reservation in September of this year. With the loss of the post, problems concerning a future for the TC ACCIS server system arose. This dilemma was solved when Maj. Ed Tatum at the Alabama National Guard in Montgomery, AL elected to receive and continue the use of this system. One of our System Administrators, John Weldon traveled to Ft. McClellan on January 24th to perform the upgrade and move the entire system to Montgomery, AL.

With the help of CPT Gordon Persons and Mrs. Diana Darling of the Alabama National Guard, the Compaq server and its peripheral equipment were packed and loaded for the trip to Montgomery, AL. The remainder of the week was consumed by reassembling the system and its peripheral devices, reconfiguring the server for LAN connectivity and making sure everything worked as required. Success was inevitable, as all parties involved were extremely competent. 💻


Leap Year 2000 Entries Are Special

Every fourth year is a leap year except for century years that are not divisible by 400.

That means the year 2000 is a leap year. There is a February 29, 2000. Why is that important to you? Due to a certain uniqueness in the way TC ACCIS accesses its Informix Relational Data Base Management System, you will have to enter the four digit year expression when you want to enter February 29, 2000. The system won't let you enter 29FEB00. You will have to enter the four digit year expression; i.e., 2000, in this instance.

Current Site Installation Version Report
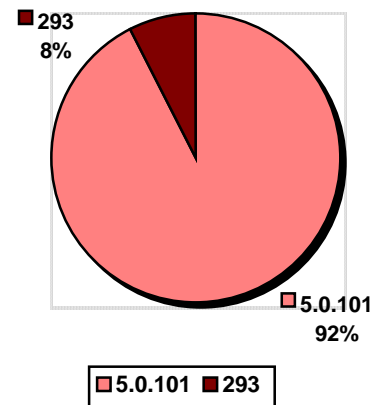
Trivial Pursuit Corner:
Why is there a leap year?

The purpose of a calendar is to reckon time in advance, to show how many days have to elapse until a certain event takes place in the future, such as the harvest. The earliest calendars, naturally, were crude and tended to be based upon the seasons or the lunar cycle.

The calendar of the Assyrians, for example, was based upon the phases of the moon. They knew that a lunation (the time from one full moon to the next) was 29 1/2 days long, so their lunar year had a duration of 354 days. This fell short of the solar year by about 11 days. (The exact time for the solar year is approximately 365 days, 5 hours, 48 minutes, and 46 seconds.) After 3 years, such a lunar calendar would be off by a whole month, so the Assyrians added an extra month from time to time to keep their calendar in synchronization with the seasons.

When Rome emerged as a world power, the difficulties of making a calendar were well known so in 45 BC, Caesar, advised by the astronomer Sosigenes, ordered a sweeping reform. By imperial decree, one year was made 445 days long to bring the calendar back in step with the seasons. The new calendar, similar to the one we now use was called the Julian calendar **(named after Julius Caesar).** It's months were 30 or 31 days in length and every fourth year was made a leap year (having 366 days). Caesar also decreed that the year would start with the first of January, not the vernal equinox in late March. Caesar's year was 11 1/2 minutes short of the calculations recommended by Sosigenes and eventually the date of the vernal equinox began to drift.

In 1545 Pope Gregory XIII reformed the Julian calendar once more. The immediate correction that was adopted was that Thursday, October 4, 1582 was to be the last day of the Julian calendar. The next day was Friday, with the date of October 15. For long range accuracy, a formula suggested by the Vatican librarian Aloysius Giglio was adopted. It said that every fourth year is a leap year except for century years that are not divisible by 400. Thus 1700, 1800 and 1900 would not be leap years, but 2000 would be a leap year since 2000 is divisible by 400. This calendar is known as the Gregorian calendar and is the one that we now use today.